

Acute Rheumatism, and Diphtheria; communications on "A calculation of the probability of the accidental and fatal incidence of phthisis upon both husband and wife," and on "The collective investigation of disease," together with several other items of interest, to some of which we shall recur hereafter.

MESSAGE; ITS MODE OF APPLICATION AND ITS EFFECTS. By DR. DOUGLAS GRAHAM, of Boston, Mass. Reprinted from the *Popular Science Monthly*, October, 1882. New York: S. H. Vail & Co.

This is a well written plea in favor of massage as an important remedy in the treatment of certain chronic morbid conditions, and the necessity of distinguishing it from mere indiscriminate rubbing. Though written more particularly for non-professional readers, it may be read with profit by all. It is a pamphlet of 17 pages.

WHAT IS THE RATIONALE OF TRACTION AND COUNTER-TRACTION IN THE TREATMENT OF HIP-DISEASE. By A. B. JUDSON, M.D., Orthopædic Surgeon to the Out-Patient Department of the New York Hospital. Reprinted from the *Medical Record*, May, 1883, pp. 12.

THE FIXATIVE POWER OF TRACTION, IN THE TREATMENT OF HIP-DISEASE. By A. B. JUDSON, M.D., etc., etc. Reprinted from the *Medical Record*, July, 1883, pp. 17.

These two pamphlets from the pen of Dr. Judson, present an able and interesting discussion of the important practical points indicated by their titles.

#### BOOKS AND PAMPHLETS RECEIVED.

Studies in Biological Laboratory of Johns Hopkins University.

Report Pennsylvania Hospital.

A Tracheotomy Tube for Gradual Withdrawal. By H. F. Hendrix.

Proceedings American Pharmaceutical Association, 1882.

Transactions of the Medical Society of Pennsylvania, 1883.

Transactions of the Medical Society of Tennessee, 1883.

Report on Diseases of Women from the First Congressional District. By R. J. Munn.

Nerve Inhibition. By H. O. Thomas.

Report of the Surgeon-General of the Navy, 1881.

### MEDICAL SOCIETY PROCEEDINGS.

#### STATE MEDICAL SOCIETY OF WISCONSIN.

An adjourned meeting of the State Medical Society of Wisconsin was held in the city of Milwaukee on the 4th, 5th and 6th of September. This meeting was, to all intents and purposes, the thirty-

seventh annual session of the Association, which should have been convened in May last, but was postponed to the above mentioned time.

Dr. T. P. Russell, President of the Society, was absent upon a European tour, and the usual presidential address was therefore dispensed with. Dr. D. Mason, of Milwaukee, Vice-President, presided.

Dr. J. S. Walbridge, of the Committee on the Practice of Medicine, made a report which dealt more especially with the forms of fever prevalent in Wisconsin and its vicinity. He claimed that they were chiefly malarial in type, even though such symptoms as intestinal hæmorrhage might occur in their course, and post-mortem examination might reveal ulcerated peyerian glands. Reference was made at some length to the means employed in treating the fevers in question, quinine and the cold sponge bath being apparently those in which the reader had most confidence. The thermometrical indications in each case were to be carefully regarded, but caution must be exercised in respect to the instrument used, some of the clinical thermometers in the market being very untrustworthy.

Dr. Walbridge considered it the duty of the general practitioner, who had but few facilities for entering upon the investigation of the more profound problems offered by pathology or physiology, to note and record for the benefit of his professional brethren the effect of therapeutic agents, for the observation of which his opportunities are many.

The most important field of laboratory research at present is the microscopic, and, by reason of the revelations now being made therein, it seems possible that our whole system of therapeutics will be profoundly modified in the near future; that the study of the various forms of zymotic disease will be for the first time placed on a scientific basis, and preventive medicine will take a higher place than it has ever yet assumed in the estimation of the practical physician.

Dr. Senn thought that whenever a post-mortem showed ulcerative change in Peyer's patches the fever was typhoid in character, and that there was more danger of mistaking typhoid fever for fever of malarial type than of supposing a malarial case to be one of typhoid. In children the typhoid fever was the more common.

Koch has proved that the way in which bacilli or micrococci act is by producing a change in the white blood corpuscles, by which change their adhesive powers are increased, and embolism and metastatic abscesses are produced.

Such anti-pyretics as quinine, salicylic acid, etc., produce the reduction of temperature by retarding tissue metamorphosis. Kairin was among the most valuable of the anti-pyretics, but its great cost at present was an obstacle to its general employment.

Dr. Stansbury agreed with Dr. Senn in the opinion that typhoid fevers were more common than those of malarial type in the Northwest, but thought that, especially in the milder cases, all the characteristics of true typhoid were not present. He thought that the non-malarial character of the disease was demonstrated by the fact that quinine had but little influence upon its duration. He had found that an

expectant form of treatment gave better results in his own personal practice than would be obtained from any active measures such as large doses of quinine, etc.

Dr. Manley had used quinine in large doses with decided advantage. In one instance he had given 20 grs. at night to a boy aged 13 years, in whom the premonitory symptoms of scarlet fever in violent form were present, and had repeated the dose on the following morning and had cut the disease short thereby.

Dr. Wenzel questioned the propriety of using quinine in such doses as 40 and 50 grs; he thought there might even be danger to life; certainly there was risk of permanent injury to the hearing.

Dr. W. considered the prevailing type of the fevers most often seen in the Northwest to be typhoid, or low, continued fevers. He did not think that malaria in this latitude amounted to a great deal, because the summer heat was not sufficiently prolonged or sufficiently intense to develop the malarial germs. Among the anti-pyretics he thought that digitalis was entitled to a very high place, and that it had particular value in bad cases of typhoid or continued fever.

Dr. Steele thought that, though there might be a tendency to the increase of typhoid in sections of the country where the population was extending and the climatic changes incident to cultivation of the soil were going on, typhoid was a very uncommon disease in his own section of the State. He considered the type of the prevalent fevers in Northern Wisconsin to be malarial, and that they might be often quickly broken up by the early use of quinine in doses of 10 or 15 grs. daily.

Dr. Day said, recurring to what Dr. Walbridge had said in regard to the use of cold water sponging as a means of lowering temperature, that in his own practice he preferred to use hot or warm water for that purpose, having found that when cold water was employed excessive reaction was liable to occur.

Dr. French had doubts of the utility of cold water sponging so far as the reduction of temperature was concerned. By means of a cold bath prolonged for an hour, he had brought the temperature down in one case from 105° to 103° permanently. He agreed with those who considered the malarial form of fever as being comparatively the more frequent in occurrence.

Dr. Barnett could not admit that typhoid fevers were rarely or never seen, but neither could he agree with those who classed all of our low continued fevers as being of typhoid type. He thought that remittents were the more frequent in occurrence.

Dr. Davies believed that a change was taking place in the type of fever generally. Typhoid was now seldom seen in his neighborhood, whereas, fifteen years ago, it was very prevalent. Remittents he often met with. He thought that he might in the aggregate use as much quinine as other physicians, but he did not favor the enormous single doses he had heard mentioned.

Dr. Brett had seen in the course of eleven years' practice at Green Bay, many cases that had all the

characteristics of typhoid, while during the same time he had seen but a single case of typical malarial fever.

Dr. Dodson had had many typical instances of typhoid, but thought that almost all kinds of sickness were modified more or less by malarial influences. He had no fear of large doses of quinine, having given from 45 to 60 grains in two doses with only a half-hour interval between them, and had repeated the same treatment on the second day if the fever rose to a dangerous height.

Dr. Manley considered that true typhoid fever often occurred, though it might be that *well-marked typical* cases were comparatively rare. In his own practice he had seen cases which he thought could be traced to the use of infected water for drinking, and thought that such use was quite common.

Dr. Hoyh was familiar with typhoid fever as it occurred in Norway, where malaria is unknown, and had, during a practice of 14 years in La Crosse, frequently seen cases of typical typhoid fever, identical in all respects with the disease as seen in Norway, the identity being further established by post mortems, while he could not recall a single case of distinct remittent fever. He thought typhoid contagious, and considered that quinine had little if any value in its treatment.

Dr. Mann, of the Committee on Practice of Medicine, reported a case of typhoid fever followed by an enlargement of one leg which presented all the symptoms of phlegmasia alba dolens. The swelling was attended by great pain, particularly along the track of the femoral vein. Pneumonia also supervened, but the patient finally recovered.

Dr. Senn thought that the swelling in such instances was due to thrombosis of the femoral vein, caused by a deficiency in the *vis a tergo*, while a septic phlebitis produced the condition known as "milk leg."

Dr. Barnett remarked that Stokes considered that such swellings of the leg as that reported by Dr. Mann were exactly the same as the swellings which sometimes follow parturition, and said that Stokes had actually called both conditions phlegmasia alba dolens. Dr. Barnett had seen such cases as Dr. Mann described.

"The Pathology and Morbid Anatomy of Tuberculosis," was the subject of a communication presented at the meeting of 1882 by Dr. Senn, and it was decided at that meeting to postpone the discussion of the subject to the present session. Dr. Meacher, in opening the discussion, said that pathologists were yet at variance upon the question whether tuberculosis itself were inherited or only a predisposition thereto, and that the best clinical observers were as yet in doubt. In a recent number of the *Lancet* was an article, in which the writer said that experience does not teach us whether tubercular disease is inherited, or whether the soil is simply made ready for it. In some cases it seems to break out after many years and without exposure.

Dr. Senn said that Koch had demonstrated the cause of tuberculosis by actual experiment; that this inciting cause is a bacillus, which induces a specific inflammatory process. There may be an hereditary

predisposition, but this may be successfully resisted if the general system be robust; while, on the other hand, a fertile soil is ready for the occupancy of any tuberculous bacilli that may find entrance, if the system generally be debilitated. Such hereditary predisposition consists in a peculiar anatomical arrangement of cells. The bacillus, or micrococcus, enters the white corpusculi of the blood, where it effects a deleterious alteration of character, which determines a specific inflammatory process, produces embolus, and favors local congestion.

From the Committee on Surgery, Dr. Meacher presented a report of a case of lithotrity, and a paper on Antiseptics. Dr. Meacher considered the best antiseptics to be carbolic acid, iodoform, and corrosive sublimate. He also called attention to the value of absorbent cotton as a surgical dressing. He did not attach any very great importance to the carbolized spray, even in operations in which some surgeons thought it indispensable, and stated that the results of his own practice justified its omission.

Dr. Binnie reported a case of strangulated female hernia, which was operated upon with the result of forming an artificial anus. The patient made a good recovery with the closure of the opening in the course of three months.

Dr. Binnie favored early operation in similar cases before the strength of the patient was exhausted by efforts at reduction. Such early operation, the subject being otherwise in good condition, was attended with less risk than an operation after prolonged taxis.

Drs. Stansbury and Reynolds considered that reduction was usually practicable, especially when opiates and anæsthetics were used, and preferred not to operate until it was certain that taxis was useless.

Dr. Catlin had used an elastic rubber bandage with success in reducing an oblique hernia. The prolonged and equable pressure excited by the bandage caused reduction after opiates, etc., etc., had failed of effect.

Dr. Brett had tapped both the sac and the knuckle of intestine with the needle of a hypodermic syringe, and had afterwards succeeded in effecting reduction. In one case after all other means had failed, he had inserted his finger nail under the constricting ring and, by either stretching, or slightly tearing some of its fibers, had returned the intestine.

Dr. Stansbury, of the Committee on Gynecology read a paper on "Rest, the Great Essential to Complete Involution," taking the ground that the process of involution is governed by laws as fixed as are those which govern pregnancy, and that by enjoining absolute rest in bed for a time sufficiently prolonged to admit of the perfect accomplishment of involution, many troublesome cases of uterine disease following on parturition would be avoided.

Dr. Barnett, from the same committee, presented a paper on "Mechanical Gynecology," claiming that the pessary has a much more extended field of usefulness than is generally admitted.

Dr. Wenzel, chairman of the Committee on Pathology, read a paper on "The Relation of Diphtheria and Erysipelas to Puerperal Fever," some of his conclusions being as follows: Puerperal fever bears the

same relation to diseases of the puerperal period that hysteria bears to diseases of the nervous system in the female. Septic infection may cause puerperal trouble, but the germs of any disease cannot produce puerperal fever, pure and simple. Zymotic diseases affecting the puerperal woman may become virulent or malignant, but they retain their entity and are the same when under similar conditions in another patient, or in the same patient at a different time. Diphtheria is a grave constitutional disease which affects, principally, persons under 16 years of age: puerperal fever, so-called, is impossible before puberty, and the so-called diphtheritic patches accompanying puerperal diseases may be found also in other lesions in which all the other symptoms of diphtheria are absent. No direct diphtheritic infection has been observed to produce anything else than diphtheria, and if a parturient patient became infected, the disease was diphtheria, and not puerperal fever. Erysipelas may develop in the puerperal woman and prove rapidly fatal, without external manifestations. The diagnosis between erysipelas in such cases and puerperal fever is extremely difficult and often impossible during the life of the patient. That erysipelas has been followed by dangerous or fatal puerperal disease is affirmed, but the number of observations is yet too small to warrant positive conclusions, and that the puerperal woman has the power to change the entity of any disease into any other disease is extremely doubtful and requires proof.

A second paper on the same subject was read by Dr. Clark, also of the Committee on Pathology, who thought that as yet the origin of all three diseases—diphtheria, erysipelas and puerperal fever—is as yet uncertain. The parturient condition was one in which the system was badly able to resist effectually the attacks of disease in whatsoever form they might be made, and any of the putrefactive bacilli, which might find entrance into the system of the puerperal woman, would find there a fertile soil and abundant nutriment. The fact that the worst cases of puerperal fever occur within two or four days after labor, should be kept in mind, and since during that time the womb was in a condition best fitted for the absorption of poisonous matters of whatever kind, the utmost care should be taken to render the lochial discharge aseptic, by the use of carbolized gauze, antiseptic absorbent cotton, etc., during the whole of the week immediately following labor.

Dr. E. W. Bartlett presented a paper on "Color Blindness," and the dangers to the public arising therefrom. A resolution was adopted as a result of this paper, and the discussion following it, under which a special committee was appointed, the duty of which was declared to be the collection and dissemination of information concerning color blindness, and the losses of life and property caused by it, the presentation of such information to the public generally, and the securing of and from Medical Societies and other bodies, which shall tend to obtaining proper legislation on the matter. Drs. Bartlett, Hoey and Brett were appointed a committee for the purpose.

Dr. Bartlett presented another paper in which he described a modified operation for cataract.

Dr. Catlin reported a case of post-mortem examination, where death was supposed to have occurred from bilious colic. The real cause, however, was discovered in an enlarged, ulcerated and ruptured gall bladder in which were impacted gall stones to the number of at least two hundred.

Dr. Manly made report of a case in which the astragalus had been removed to relieve disease following upon dislocation. The foot was a little inverted, but symmetrical in appearance. The wound had healed kindly. Dr. M. exhibited the bone which had been removed, and it was examined by many members with great interest.

Dr. Epley read a paper upon Ergot and its Therapeutic value, claiming that this drug was entitled to rank in usefulness with iron, opium and quinine. It has great power in arresting hacking, irritating coughs, particularly when a relaxed condition of the mucous-membrane exists in connection therewith, and has proven of marked value as an internal hæmostatic. Its most important power, however, lies in its ability to arrest promptly all acute local inflammations, especially in the respiratory organs, and where it will abort one pregnancy it will cut short ten pneumonias.

Drs. Manley, Meacher, Binnie and Bartlett were able to endorse several of the positions taken by Dr. Epley from the results of their own practice, and the general feeling in the discussion that followed the reading of the paper was favorable to the views of the writer.

The following resolution was adopted:

*Resolved*, That in consideration of the advances made as to a knowledge of the causes of consumption, and of the now known infectious character of the disease, we use all the means in our power to have the phthisical members of families as much as possible separated from the healthy members, and also that we recommend the State Board of Health to take means to have such persons separated from intimate association with the well in our public institutions.

The following officers were elected for the coming year. President—Dr. N. M. Dodson, of Berlin; Vice Presidents—Drs. E. W. Bartlett and G. W. Jenkins; Assistant Secretary—Dr. Wm. Thorndike. Censors—Drs. Mason, Senn and Thorndike. Dr. Reeve, of Appleton, is permanent Secretary.

Twenty-seven gentlemen were admitted to membership, and the Society adjourned to the first Tuesday in June, 1884, the session to be held in the city of Milwaukee.

A characteristic feature of the meeting, and one which made it one of the most profitable held by the Association, was the large amount of time given to discussion of the various topics suggested by the papers presented.

#### REPORT OF THE SECRETARY OF THE SECTION ON DISEASES OF CHILDREN.

##### FIRST DAY.

CLEVELAND, O., June 5, 1883. }  
COUNCIL CHAMBER, CITY HALL. }

Section of Diseases of Children convened at 2:30 P. M.

The Chairman, Dr. Blount of Indiana, and the

Secretary, Dr. Sears, of Texas, being absent, a temporary organization was effected by calling Dr. Charles Warrington Earle, of Chicago, to the Chair, and Dr. E. L. Boothby of Wisconsin to the Secretary's desk. None of the papers in regular programme being present, a volunteer paper was read by Dr. Earle on Cephalo Hematoma In the New Born. This subject was discussed by Drs. Reed of Cincinnati, Harris of Virginia, Lee of Baltimore and Boothby of Wisconsin.

On motion voted to refer the paper to the committee on publication.

No further business being brought up, the section adjourned till 2:30 P. M. of Wednesday.

##### SECOND DAY.

Section called to order at 2:30 P. M. by Dr. Earle, of Chicago. He introduced the regular chairman, Dr. Blount, of Indiana, who assumed the chair, and Dr. Boothby, of Wisconsin, was chosen Secretary for the balance of the meeting, in place of Dr. Sears, of Texas, who continued absent.

The paper on the Unity of Membranous Croup and Diphtheria, by Dr. Harris, of Virginia, was read, and a very interesting and earnest discussion ensued, participated in by Drs. Earle, of Chicago; Christie, of Iowa, Lee, of Baltimore, Sheehan of New York, Freeman, of Ohio, Boothby of Wisconsin, Ulrich, of Pennsylvania, and many others. Voted to postpone further discussion on the subject until Thursday. This vote was reconsidered so far as to allow Dr. Harris the reader of the paper, to close the discussion for to-day, as he was obliged to leave, and could not be present at the next session of the Section. Dr. Harris' paper was referred to the Committee on Publication.

Dr. Alex. Y. P. Garnet, of the District of Columbia' read a paper on Epidemic Jaundice Among Children. The paper was discussed by Drs. Lee, of Pennsylvania, Harris, of Connecticut, and Lee, of Baltimore. The paper was then referred to the Publication Committee.

A volunteer paper on the Surgical Treatment of Purulent Pleuritic Effusions in Children, by Dr. W. H. Meyers, of Indiana, was read, discussed and referred to the Committee on Publication.

A second volunteer paper by Dr. C. W. Earle, of Chicago, on a Plea for Pleasant Medication and a more Thorough Study of Infantile Therapeutics.

This paper elicited considerable discussion, after which it was referred to the Committee on Publication.

Dr. Boothby, of Wisconsin, was excused from reading his paper on Croup and Diphtheria—their Unity or Duality, as the paper of Dr. Harris, of Virginia, covered the same ground, and embodied similar views.

The Section then adjourned until 2 P. M., Thursday.

##### THIRD DAY.

The Section was called to order by Chairman Dr. Blount, of Indiana, at 2:30 P. M. Minutes of yesterday's session read, corrected and then approved.

The first paper was read by Dr. Good, of Indiana,

on Dentition. Discussed by Goodman, of Illinois, Earle, of Chicago, Rud, of Ohio, Freeman, of Indiana, Boothby, of Wisconsin, et al. After discussion and reference to Committee on Publication, Dr. Casebeer, of Indiana, read an interesting paper on Pædiatric Medication. Discussed by Drs. Sennet, of Ohio, Ulrich, of Pennsylvania, Von Cline, of Ohio, and others. The paper was referred to the Committee on Publication.

Moved by Dr. Earle that Dr. Casebeer read a paper by title which he has not thoroughly prepared, the title of which is Pædiatric Therapeutics and its Relation to General Therapeutics; that he be asked to complete the same and forward to the Section for publication in the transactions, subject to the action of the Committee on Publication.

Dr. Norman Teal, of Indiana, read a volunteer paper on Infantile or Essential Paralysis. Discussion on the same by Dr. Meyers, of Indiana, Hyat, of Iowa, Ulrich, of Pennsylvania, Lee, of Baltimore, Snow, of Michigan. On motion, paper was referred to Committee on Publication.

As the papers on Diphtheria, by W. F. Sharrer, of Indiana; on Hereditary Syphilis, by G. W. Burton, of Indiana; on Cholera Infantum, by B. W. Ryan, of Indiana; Acute Inflammation of the Lungs in Children Under Six Years of Age, were not present, neither the authors of the same, the subject of Diphtheria, Its Varieties and Variations, was taken up and discussed by E. L. Boothby, of Wisconsin; by Dr. Reed, of Iowa; Dr. Sheehan, of New York; Dr. Ulrich, of Pennsylvania; Gallagher, of Pennsylvania; Lee, of Maryland, and Dr. Hyat, of Iowa.

Dr. Hyat having spoken his allotted time, it was extended, to enable him to finish.

The time having been consumed, further discussion was postponed.

The Section adjourned, after a session of five hours.

E. L. BOOTHBY,  
*Secretary pro tem.*

## DOMESTIC CORRESPONDENCE.

### PHILADELPHIA LETTER.

(For The Journal of the American Medical Association.)

Our medical colleges and societies have again resumed their usual activity with the return of fall. On Monday, September 10, the University, the Medico Chirurgical, and the Jefferson began their preliminary course of lectures which will continue throughout the month. The faculty of Jefferson Medical College, in order to afford every facility for a higher medical education, have organized a post-graduate course. This course, which is now being perfected, will consist of five terms of seven weeks each, and will begin October 1. The physicians selected for that course, and the subjects taught by them respectively, are as follows:

Ophthalmology, Prof. Wm. Thompson; Otology, Drs. L. and Chas. Turnbull; Gynæcology, Drs. F. H. Getchell and J. Ewing Mears; Physical Diagnosis, Diseases of the Chest, Dr. J. C. Wilson;

Orthopædic Surgery, Dr. O. H. Allis; Normal and Pathological Histology, Dr. Morris Longstreth; Diseases of Children, Dr. O. P. Rex; Nervous Diseases, Dr. J. T. Eskridge; Laryngology, Drs. Sajous and Jurist; Urinary Pathology, Dr. J. S. Neff; Medical Chemistry, Dr. G. M. Ward; Practical Pharmacy, Dr. S. M. McCollin; Experimental Physiology, Dr. A. P. Brubaker; Diseases of the Skin, Dr. J. V. Shoemaker; Botany, Materia Medica, and Experimental Therapeutics, Drs. A. K. Minich and A. R. Rinear.

At a stated meeting of the Obstetrical Society of Philadelphia, held in the hall of the society, 13th and Locust streets, the evening of Sept. 6th, Dr. Wm. T. Taylor reported a case of face presentation with eclampsia. The patient was a primipara, age 23, and, as she had been enjoying good health during her gestation, he had no reason to expect trouble. At 6:30 o'clock in the morning he was called to the labor; found the pains slow, the os slightly dilated, and was able to diagnose a face presentation with chin toward the sacrum. As the patient was quite restless he gave her a chloral mixture and left her and went home for breakfast. At 8:30 o'clock he was called hurriedly by the husband, who reported that his wife had had a fit, and while he was in the room soon after his arrival at the house of the patient, she had two convulsions in rapid succession. The face was red, the head drawn to one side, and the convulsions attended with all the usual symptoms of eclampsia. He immediately sent for some chloral and an injecting apparatus, and injected a dram of chloral dissolved in four ounces of water into the rectum which controlled the convulsions. Examination now revealed the os dilated, the head high up, and the face presenting as before. An attempt was now made to rotate the head into a natural position with occiput anterior, and was successfully accomplished. The patient being restless, another injection of chloral—same strength as before—was administered. The head was then brought down the inferior strait, the labor left to nature, and soon a still-born child was born. There was no more eclampsia. The patient was now unconscious from the chloral, but finally awoke refreshed. Later in the afternoon, however, she was somewhat restless, but the next morning her condition was good in every way except a slight abdominal tenderness. No further trouble was experienced. Dr. Taylor particularly referred, in this connection, to the virtue of chloral in controlling puerperal convulsions of a nervous character.

In discussing this report, Dr. Albert H. Smith suggested that the discussion be particularly directed to the subjects of the management of face presentation and convulsions. He considered Dr. Taylor fortunate in being able to restore the position in the case reported from a presentation of chin posterior to that of the occiput anterior position, and retaining it thus during the application of the forceps. This he had found in his experience a very difficult thing to do. He thinks there is something very mysterious in the ætiology of face presentation. Though not difficult to understand why the face comes down, secondarily, from a gush of water in partial flexions for